Weather and Seeing at the CHARA Array

Nils Turner

13 March 2017 / CHARA Winter Meeting, Pasadena

Weather Station Uptime

	Cum.	2013	2014	2015	2016
E1	95.4	99.9	99.7	95.9	95.2
E2	80.6	93.0	62.2	3.4	65.0
S1	94.4	99.7	79.8	94.3	95.1
S2	93.8	91.7	98.5	97.0	93.3
W1	96.0	93.3	97.9	98.2	95.0
W2	97.9	92.3	99.6	98.0	92.1
L1	68.9	12.9	99.7	99.4	42.5

Table: Weather station uptimes as a percentage of time.

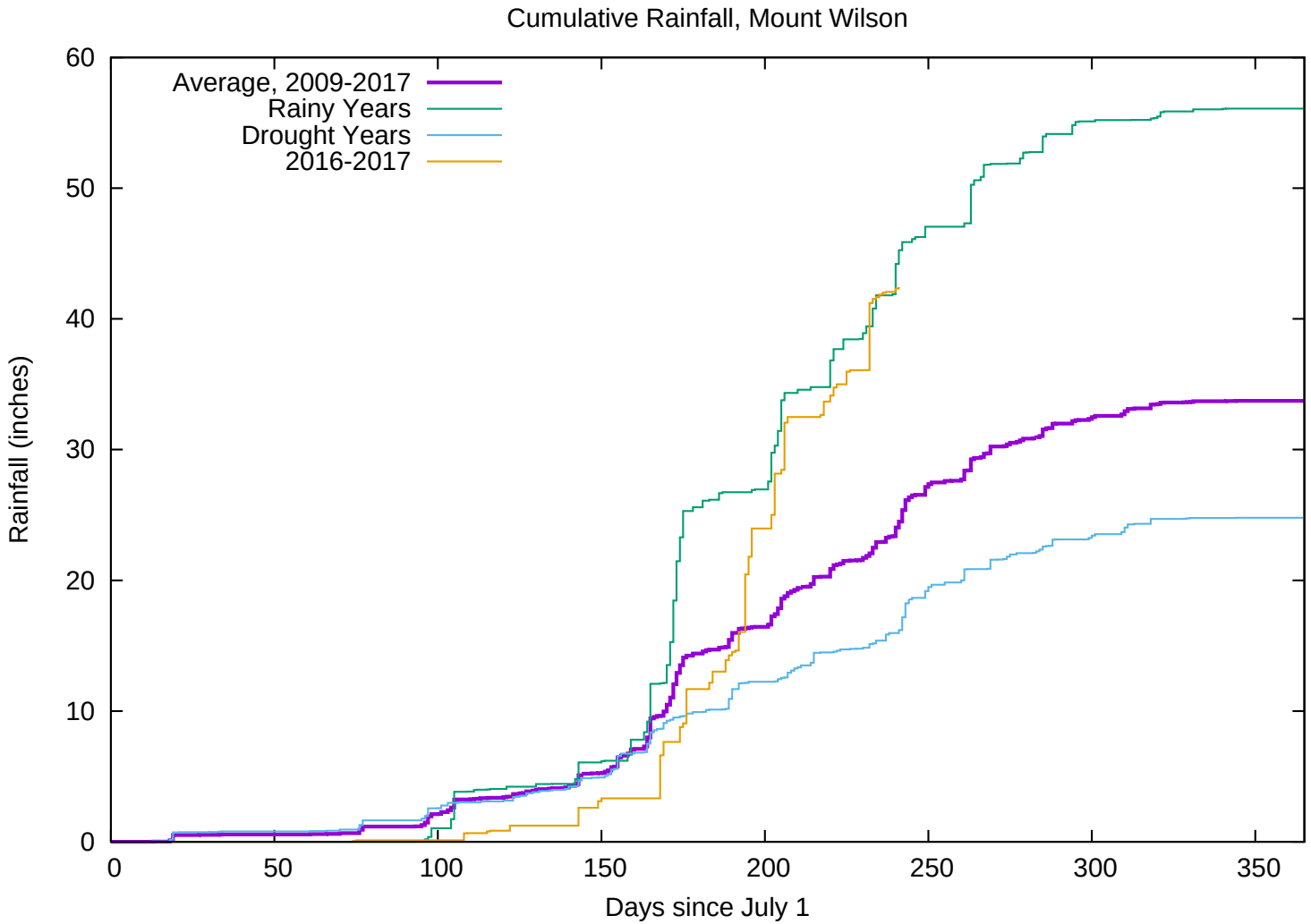
Cross-year Vital Stats

	2011	2012	2013	2014	2015	2016
Measurable Wind	30.4	35.6	27.5	11.4	14.3	50.8
High Wind†	0.5	0.3	0.3	0.2	0.2	0.3
High Humidity♮	18.2	15.6	13.5	16.0	17.5	17.4

Table: Table entries are percentages of time. Values quoted are the largest of the six bunker weather stations. † High wind is defined as being above 20 kph. ♮ High Humidity is defined as being above 90%.

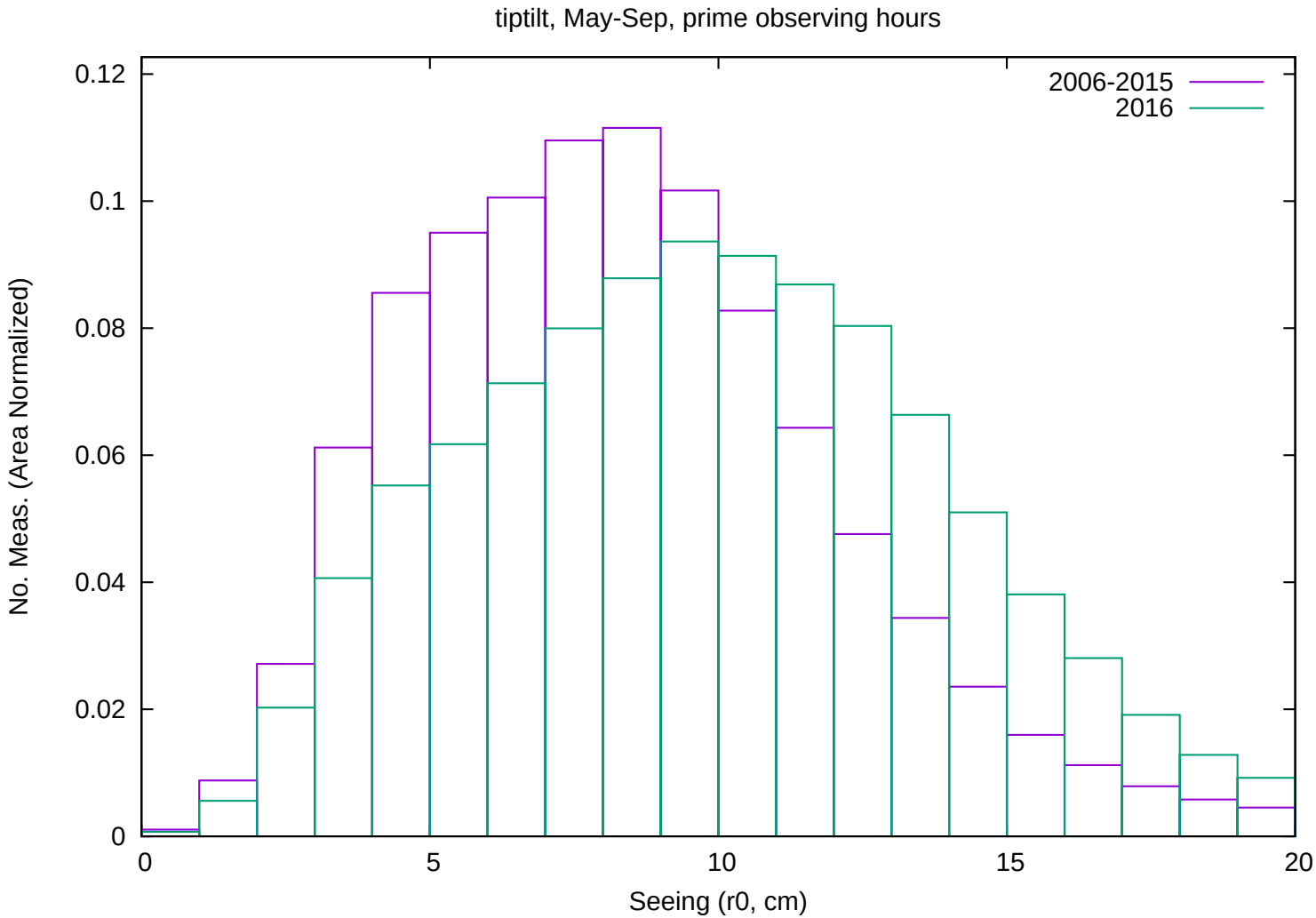
Rainfall

data courtesy of L. Webster



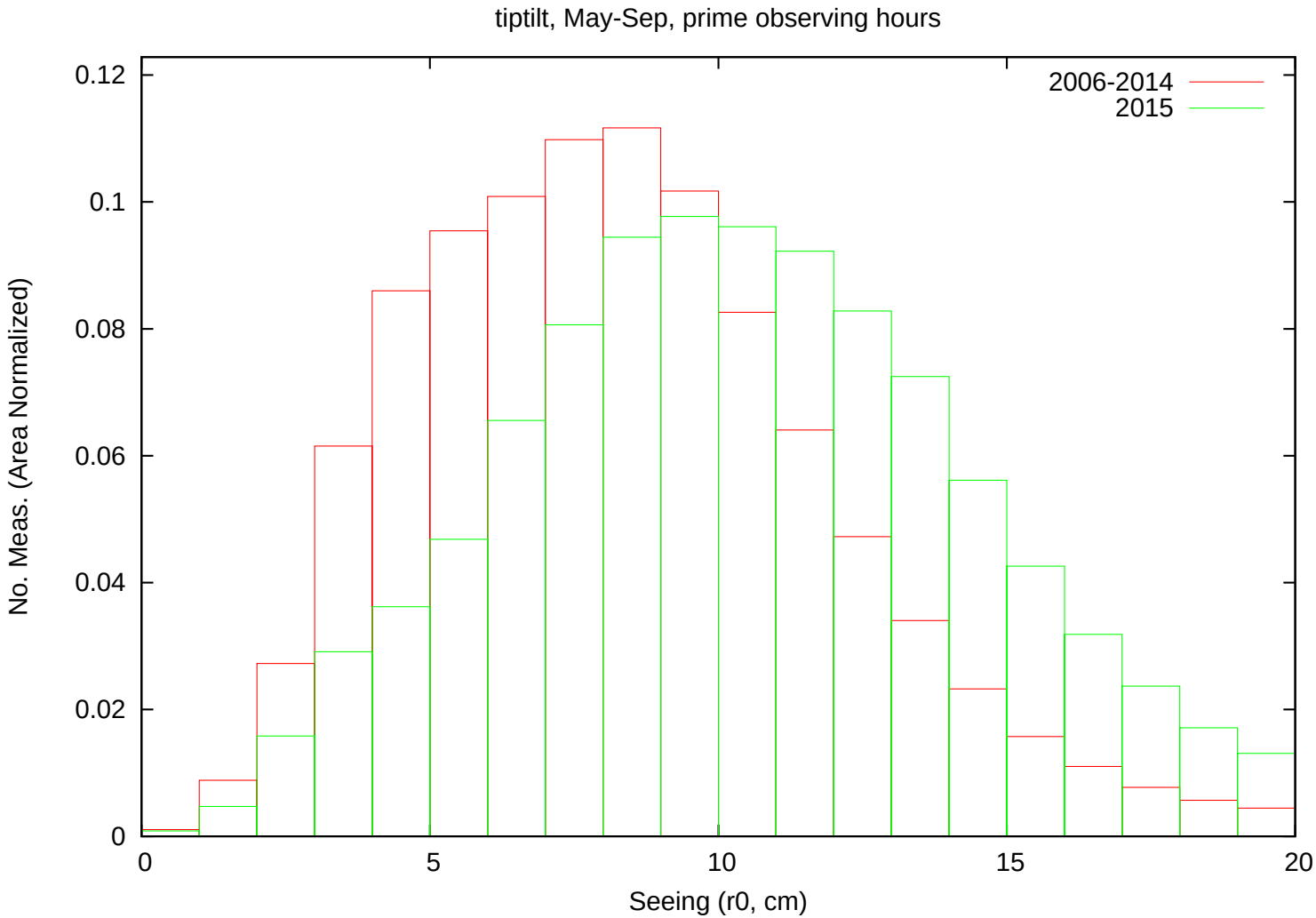
Seeing

r_0 values



Seeing

r_0 values, last year



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- Andor cameras not compatible with 4.4 kernels ... yet

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- Building tools to combine CHARA and MWO data

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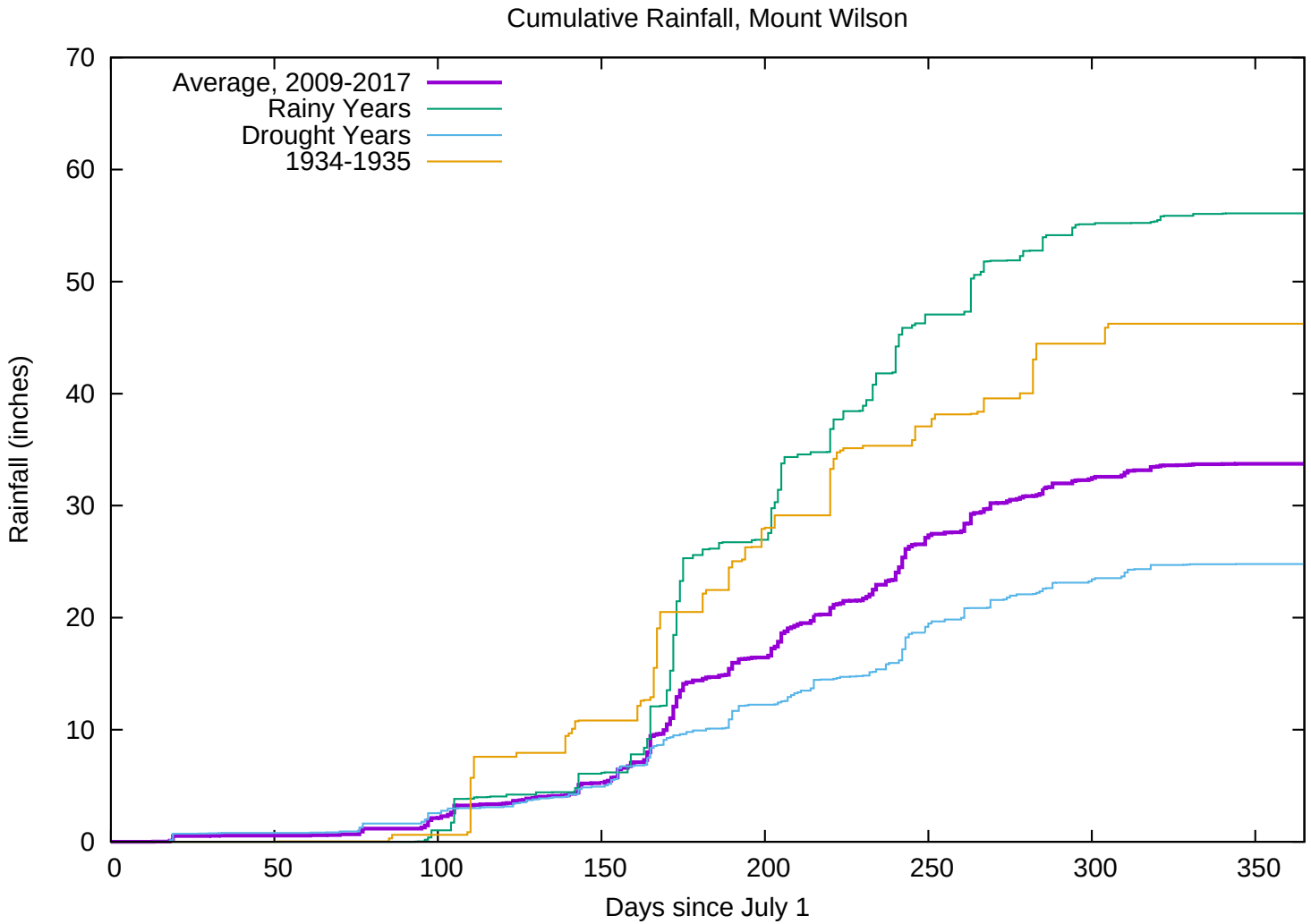

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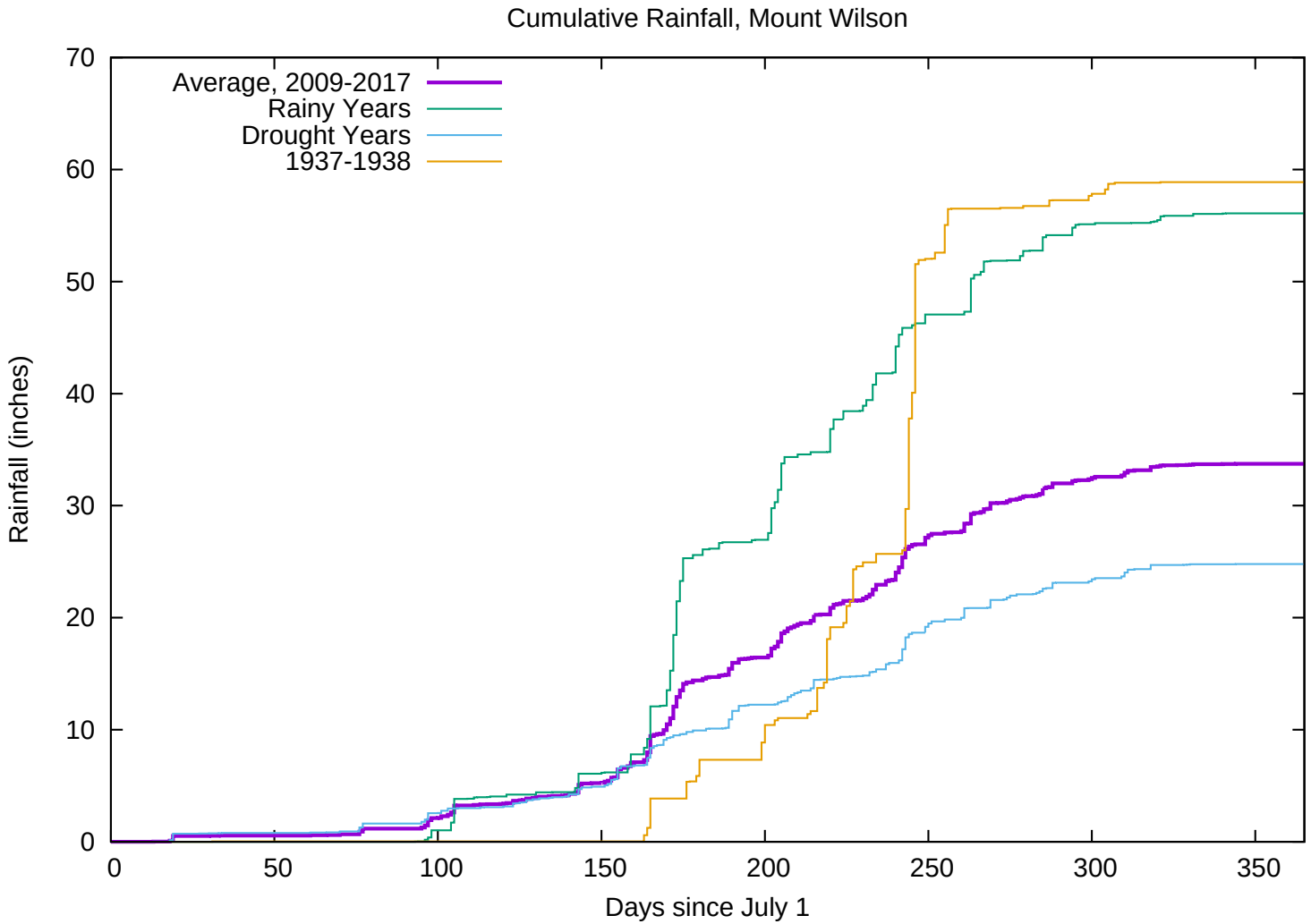

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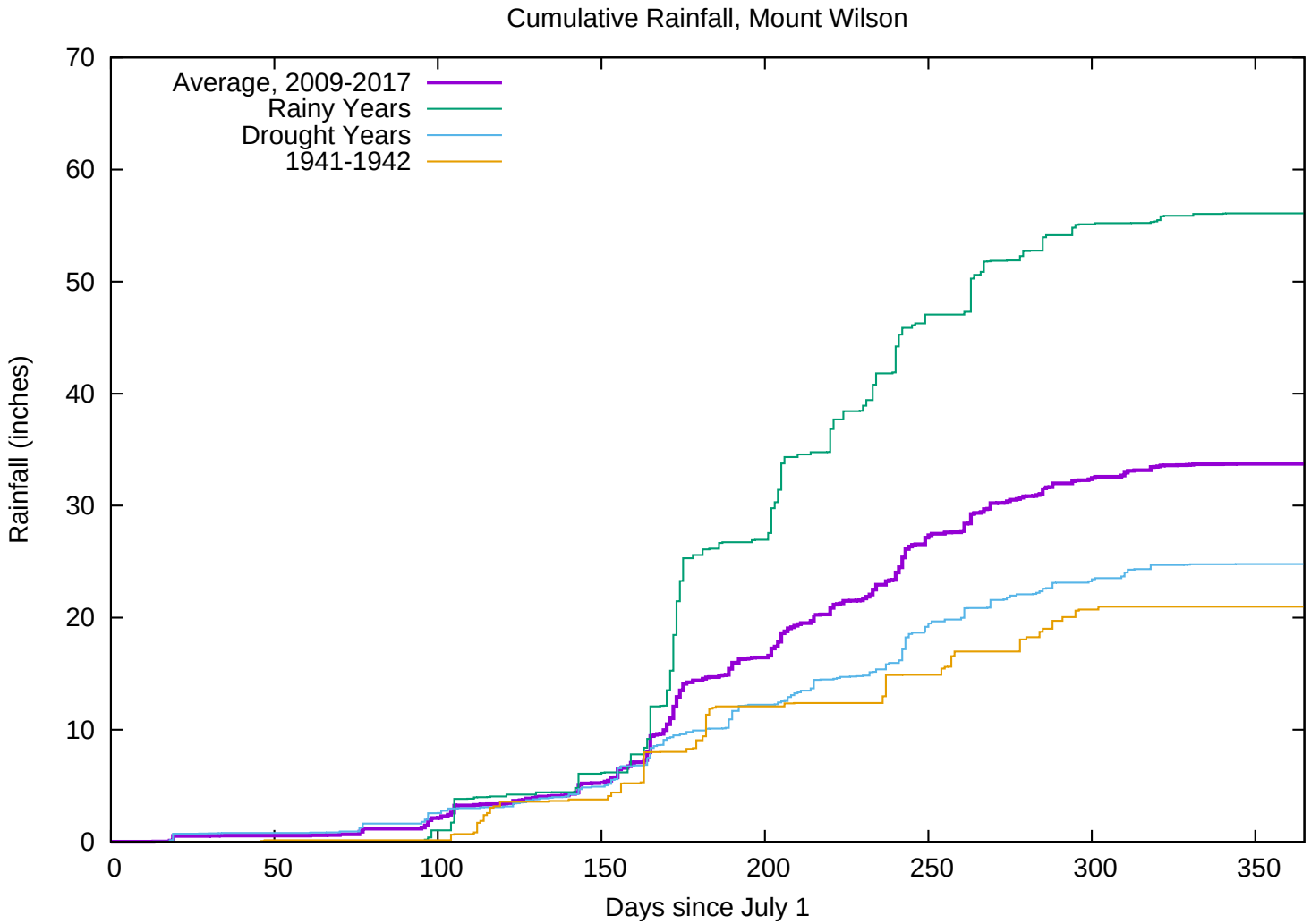

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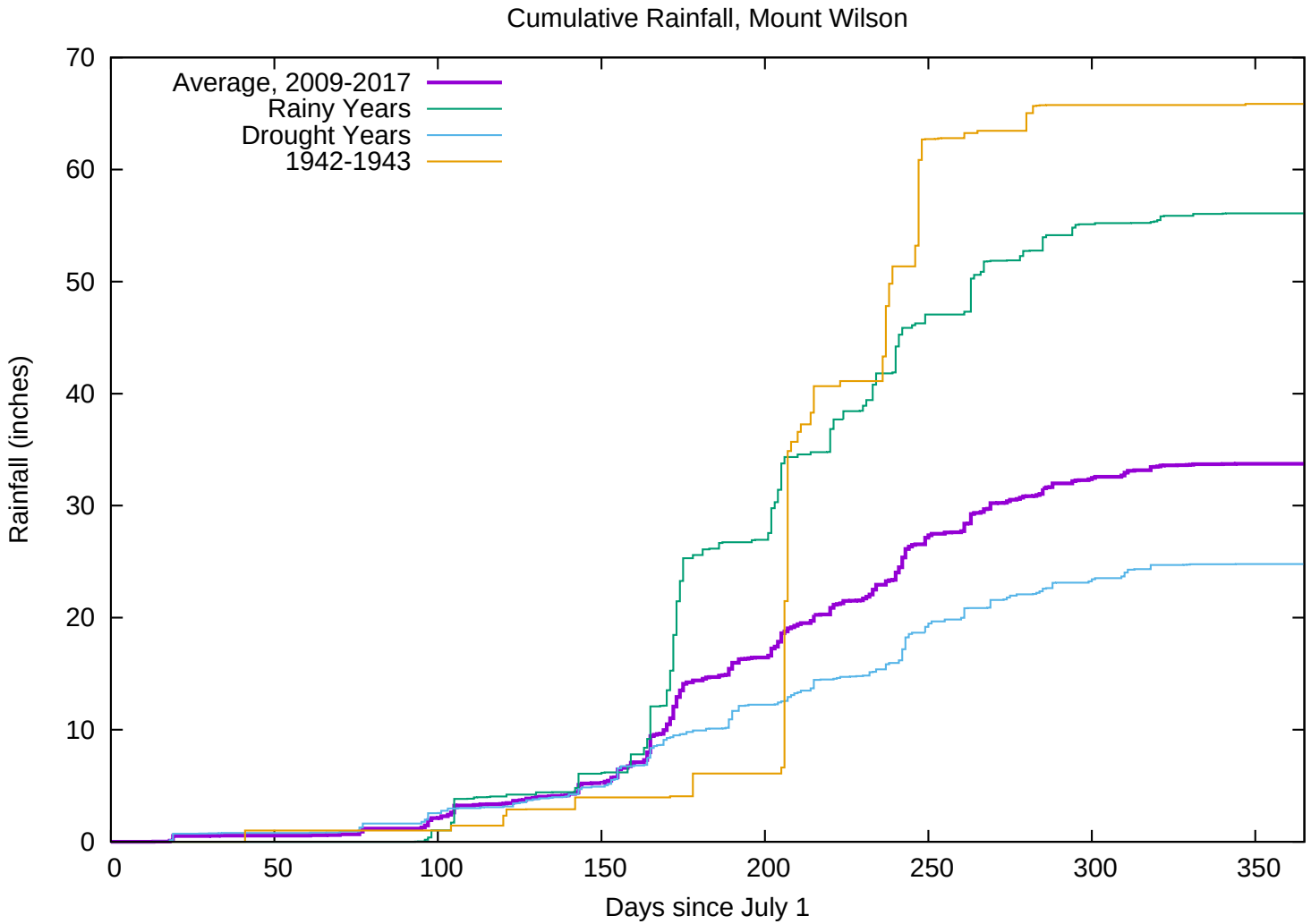

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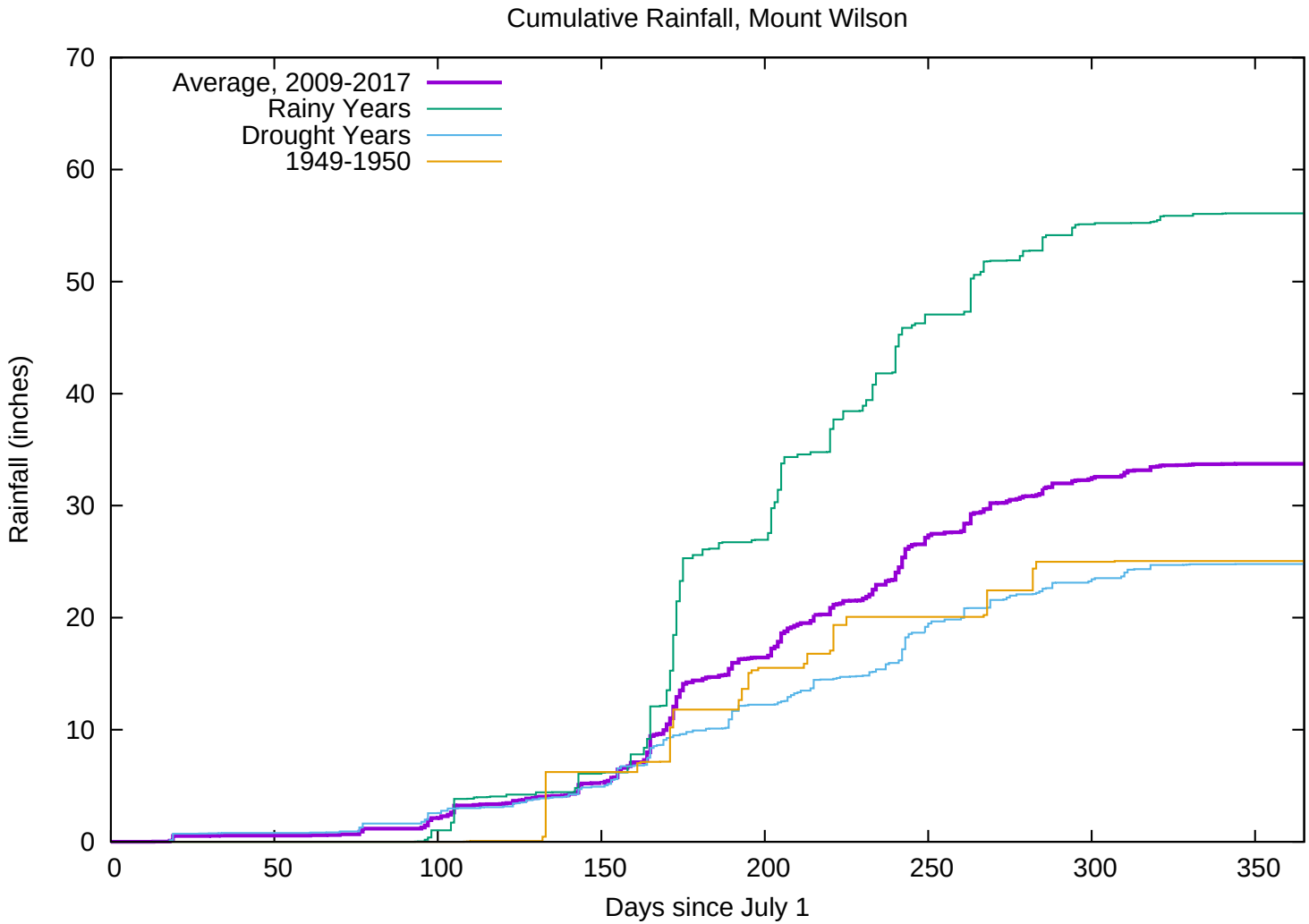

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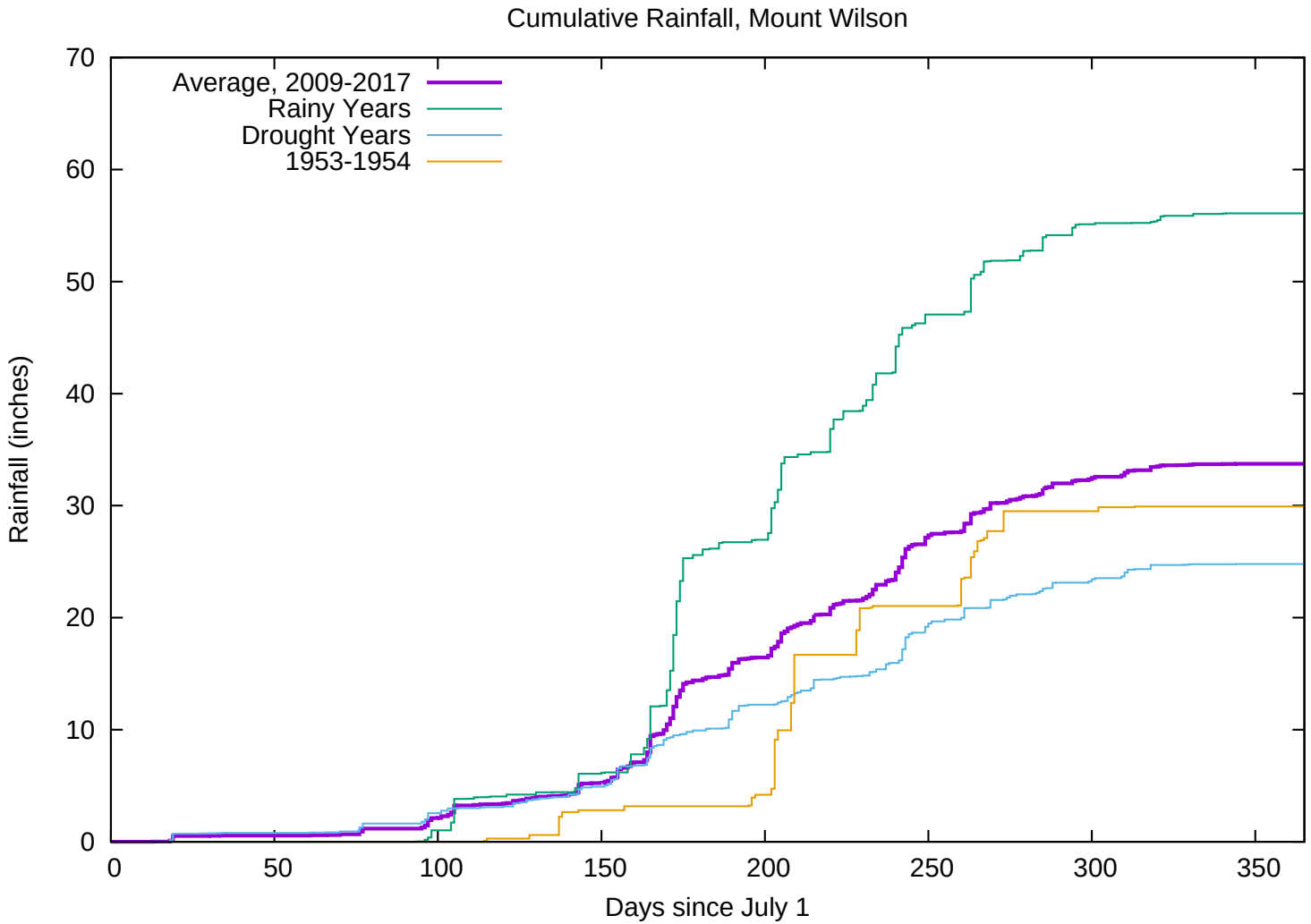

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